



Appendix 7.8
Bat Roost Survey Report

August 2019

Document Title	The Lanes Bat Roost Report
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Document Ref	6900.006

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Date	August 2019
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Amendment History					
Version	Date	Modified by	Check / Approved by	Reason(s) issue	Status
2.0	01/03/19	LP	JC	Client amendments	Superseded
3.0	06/08/19	LP	JC	Updated site description	Issued

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G6900.011 Ground Based and Aerial Tree Inspection Results

1.0 Introduction

- 1.1 Taylor Wimpey and Homes England are seeking to obtain planning permission for residential-led mixed-use development and on land to the east of Penwortham Way known as 'The Lanes, Penwortham' (hereafter referred to as 'the site').
- 1.2 TEP was commissioned, in March 2018, to assess the suitability of buildings and trees within the site for roosting bats.

Description of Site

- 1.3 The central grid reference of the site is SD 53329 25884 and the location of the site is shown in Figure 1 below. Hatched areas within the red line site boundary in Figure 1 do not fall within the scope of the current planning application and these were not subject to surveys.
- 1.4 The site is irregular in shape and occupies approximately 53ha on land to the east of Penwortham Way to the south of the settlement of Penwortham.
- 1.5 The site is bound by Penwortham Way to the west, existing residential development south of Kingsfold Drive to the north, the West Coast mainline railway to the east and agricultural fields to the south.
- 1.6 The site comprises a mix of land uses including:
 - Agricultural land separated into a number of fields by fences, hedgerows and trees;
 - Pylon accommodation land;
 - Pylon corridor; and
 - Roads.
- 1.7 The site surrounds a number of residential dwellings and light industrial buildings which do not lie within the application boundary.

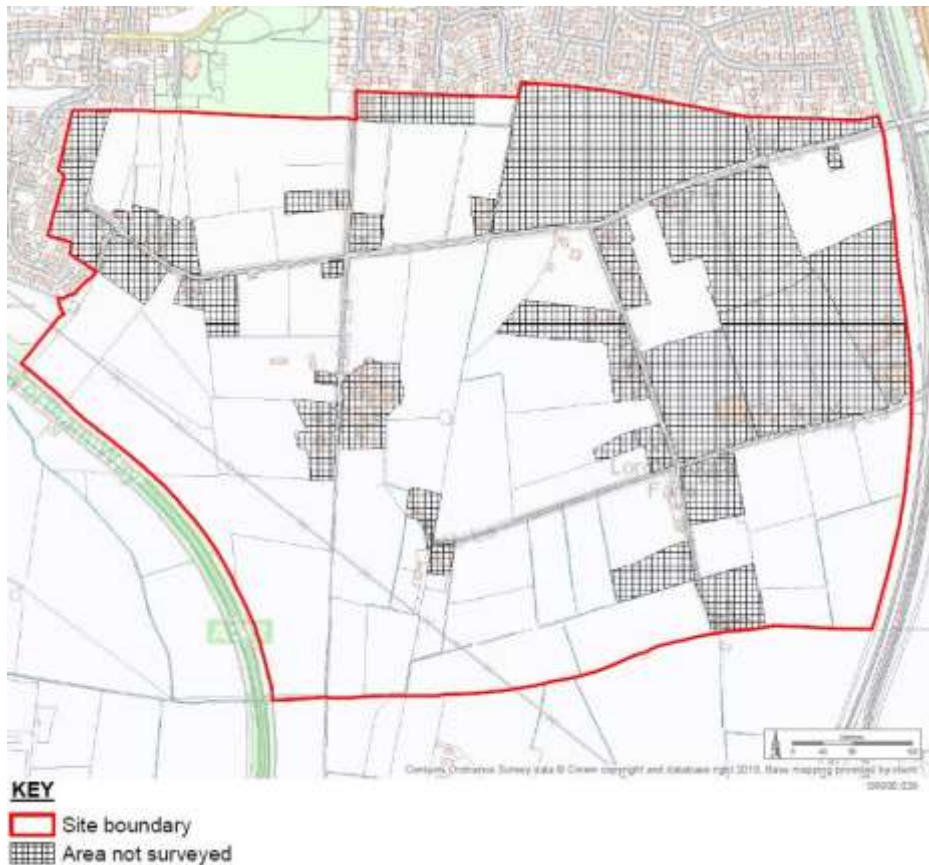


Figure 1: Site Plan. Contains Ordnance Survey data © Crown copyright and database right 2018.

Site Suitability for Roosting Bats

- 1.8 A separate report detailing bat foraging and commuting activity across the site has been produced (TEP reference: 6900.003). No incidental roosting behaviour was noted during these surveys.
- 1.9 The site contains a large number of mature trees, particularly within field boundary hedgerows. There are also numerous buildings, largely associated with residential or agricultural use, which could be suitable for roosting bats.

2.0 Method

Buildings

Preliminary Roost Assessment

- 2.1 The buildings shown in red on Figure 2 below are to be demolished under the proposed development. There are other buildings within the site but it is not anticipated that these will be impacted under the proposals.

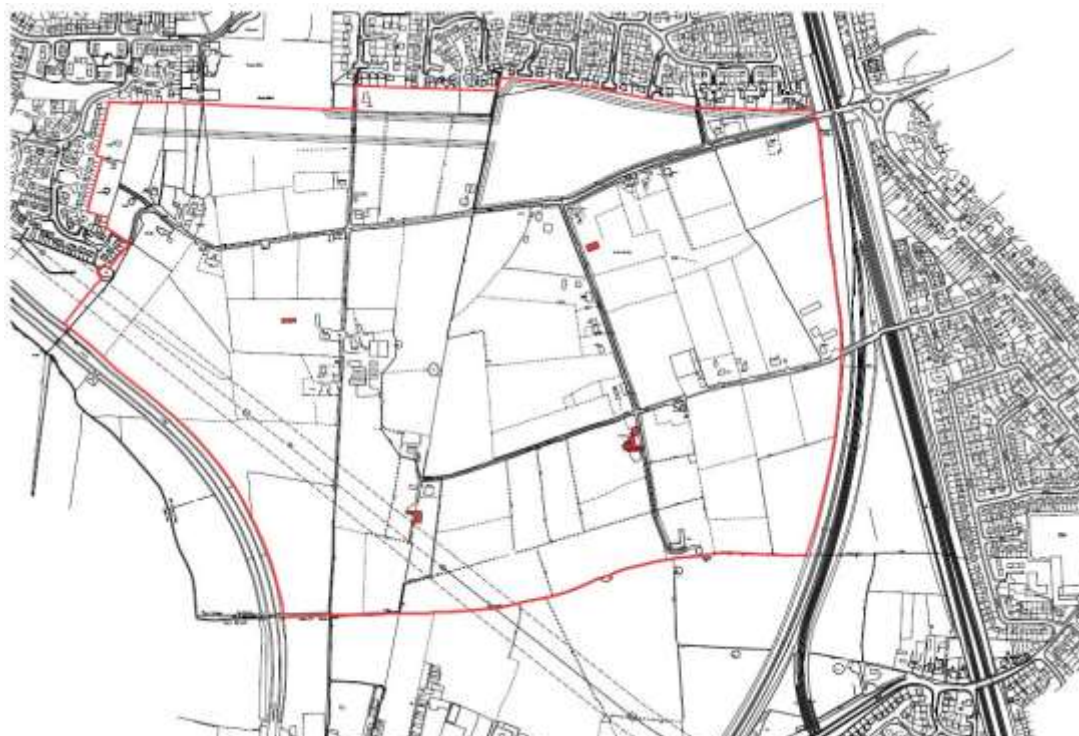


Figure 2: Building Demolition Plan

- 2.2 These buildings were assessed in line with the Bat Conservation Trust (BCT) Guidelines (Collins, 2016¹) for their potential to support roosting bats. The survey was undertaken by TEP bat licensed ecologist Lizi Langston (Natural England Class 2 Survey Licence number: 2016-22843-CLS-CLS) on the 26th to 28th March 2018 and 4th December 2018.
- 2.3 The buildings were subject to an external assessment for bat roost suitability, where accessible, to identify any suitable potential roost features (PRF's) for use by bats such as crevices, cracks, holes and any other potential access points into the structures. PRF's were inspected to assess their suitability for use by bats using a torch and binoculars. Inspection of features included determining presence of any signs of bats roosting within the buildings including; droppings, feeding remains and other indicative marks.

¹ Collins J. 2016. Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition. Bat Conservation

2.4 The buildings were then categorised in accordance with the criteria set out in the BCT Guidelines (Table 1).

Table 1: Bat Roosting Habitat Categories (BCT, 2016)

Category	Roosting Habitats
Negligible	No potential roost features are present that are likely to be used by bats.
Low	A structure or tree of sufficient size and age to contain potential roost features but none seen from the ground or features seen with only limited roosting potential.
Moderate	A structure or tree with one or more potential roost features that could be used by bats due to its size, shelter, protection, conditions and surrounding habitat, but which is unlikely to support a roost of high conservation status (maternity or hibernation).
High	A structure or tree possessing one or more potential roost features that are suitable for use by larger numbers of bats on a regular bases and potentially for longer periods of time, due to its size, shelter, protection, conditions and surrounding habitat.
Confirmed Roost	Evidence of roosting bats has been identified within the structure or tree.

Limitations

2.5 No internal building assessments could be undertaken during the survey.

Trees

Ground Based Tree Assessment

2.6 Trees within the site were assessed in line with the BCT Guidelines for their potential to support roosting bats. The survey was undertaken by TEP bat licensed ecologist Lizi Langston (Natural England Class 2 Survey Licence number: 2016-22843-CLS-CLS) on the 26th to 28th March 2018.

2.7 The ground based assessment of the trees involved the surveyor searching from the ground for any PRF's which may be used by bats, using binoculars. Most tree roosts are created by one or a combination of the following:

- Old woodpecker holes;
- Splits in trunk, bough or large branches;
- Rot holes in trunk, bough or large branches;
- Holes formed by two boughs or branches growing in contact;
- Loose or lifting bark; and

- Underneath a covering of dense latticed creeper, usually ivy (*Hedera helix*).

2.8 The trees were then categorised in accordance with the criteria set out in the BCT Guidelines (Table 1).

Limitations

2.9 Due to access restrictions to some land parcels within the site, it was not possible to view the entirety of several trees included within the survey.

Aerial Tree Inspections

2.10 Following the ground based assessment, trees categorised as moderate or high were subject to aerial inspection. The survey was undertaken by Stewart Bradshaw, an experienced tree climber and bat ecologist (licence ref: 2015-118116-CLS-CLS) between 23rd July and 3rd August 2018. PRF's were searched for evidence and/or suitability for roosting bats with the aid of high powered torch and endoscope.

2.11 The trees were then categorised in accordance with the criteria set out in the BCT Guidelines (Table 1).

Limitations

2.12 Due to access restrictions to some land parcels within the site, as well as presence of nesting birds and health and safety issues regarding cattle, it was not possible to complete aerial inspections of several trees included within the survey.

Back Tracking Surveys

2.13 Following the aerial inspection, trees categorised as moderate or high were subject to back tracking surveys. Trees within the survey area were grouped into six survey "zones", as shown in Figure 3 below.

2.14 Zones that contained trees with high suitability (Zones 3, 4 and 6) were subject to three back tracking surveys. Zones that contained trees with moderate suitability only (Zones 1 and 5) were subject to two back tracking surveys. The number of surveyors (one or two per zone) was determined based on the number of trees, size of area and accessibility.



Figure 3: Back Tracking Survey "Zones" at The Lanes, Penwortham

- 2.15 Surveyors were positioned along potential bat commuting features within each zone and moved in the same direction with an aim to identify bats re-entering roosts at dawn or moved in the opposite direction with an aim to identify bats emerging from roosts at dusk. The back tracking surveys were carried out in line with the 2016 BCT Guidance. Dusk surveys commenced 15 minutes prior to sunset and finished 90 minutes after sunset. Dawn surveys commenced 90 minutes prior to sunrise and finished 15 minutes after sunrise. Surveyors used heterodyne detectors (Pettersen D230) and frequency division (Anabat SD2 and Express) detectors to record bat calls. Sonogram analysis was undertaken by Lizi Langston, trained to Advanced Level 3 Analook Analysis.

Limitations

- 2.16 Back tracking surveys could not be undertaken in Zone 2 due to health and safety issues associated with cattle and night time working.

3.0 Results

3.1 Records of pipistrelle bats were returned within 1km of the site in the desk based assessment produced by TEP in June 2018 (Report Ref: 6900.007).

Buildings

3.2 The results of the building inspection are discussed in Table 2 below.

Table 2: Results of PRA of Buildings to be Demolished

Building Ref	Grid Ref	Description	Roosting Category
1	SD 53401 26261	Barn with concrete block walls and a pitched corrugated metal roof and metal cladding on the west elevation. Metal sliding doors and corrugated plastic skylights.	No potential roost features externally. Access points into the interior at the eaves but buildings of this type of construction are usually draughty inside and lack potential roost features. Negligible roosting potential.
2	SD 53465 25956	Red brick barn with pitched tile roof which has recently been repaired. Windows and door are securely boarded up but there is a large hole in the brick work on the west elevation. Scaffolding was erected internally and the underside of the roof tiles was lined with wooden sarking.	Roof was in good condition but may have some small gaps under occasional tiles which could be used by individual bats. No potential roost features identified in the brick work or internally but may be features that weren't visible. Moderate roosting potential.
3	SD 53473 25930	Dilapidated corrugated metal barn that has partially collapsed.	No potential roosting features. Negligible roosting potential.

Building Ref	Grid Ref	Description	Roosting Category
4	SD 52935 26147	Red brick shed with curved corrugated metal roof.	No potential roost features externally. Access points into the interior at the eaves but buildings of this type of construction are usually draughty inside and lack potential roost features. Negligible roosting potential.
5	SD 52991 26036	Corrugated metal shed.	No potential roost features externally. Access points into the interior at the eaves but buildings of this type of construction are usually draughty inside and lack potential roost features. Negligible roosting potential.

Trees

Ground Based and Aerial Inspections

3.3 There are a large number of trees, ranging from young to mature, within the site, largely associated with field boundary hedgerows. Mature tree species include:

- Elder *Sambucus nigra*
- Sycamore *Acer pseudoplatanus*
- Ash *Fraxinus excelsior*
- English oak *Quercus robur*
- Alder *Alnus glutinosa*
- Willow species *Salix sp*
- Cherry species *Prunus sp*
- Oak species *Quercus sp*

3.4 The number of trees with low, moderate or high roosting suitability within the site are summarised in Table 2 below and illustrated on Drawing G6900.011. No confirmed roosts were identified during these surveys.

Table 3: Trees with Roosting Suitability at The Lanes, Penwortham

Roosting Suitability	Number of Trees
Low	92

Roosting Suitability	Number of Trees
Moderate	35
High	15
Total number of trees	142

Back Tracking Surveys

3.5 Survey details are provided in Table 3 below.

Table 4: Back Tracking Survey Details for Pickerings Farm

Date	Zone(s)	Start Time	End Time	Sunrise	Weather
09/08/18	3 to 5	04:08	05:53	05:38	14C, no rain or wind
14/08/18	1 and 6	04:17	06:02	05:47	14C, no rain or wind
22/08/18	1 and 3 to 6	04:31	06:16	06:01	17C, no wind or rain
04/09/18	1 and 3 to 6	04:54	06:39	06:24	13C, no rain or wind

3.6 No roosts were identified during the back tracking surveys, in the trees nor incidentally in nearby buildings.

3.7 Bat activity during the surveys was very low with only occasional passes from common pipistrelle *Pipistrellus pipistrellus*, heading away from the survey zones. This corresponds with the bat activity levels recorded during the transects and static monitoring surveys (TEP report reference: 6900.003).




4.0 Conclusions





- 4.1 Building 2 within the site has moderate suitability for summer roosts of low numbers of common bat species. The remaining four buildings have negligible suitability for roosting bats.
- 4.2 142 trees were identified to contain potential roost features ranging from low to high roost suitability. No confirmed roosts were identified during the back tracking surveys or incidentally during the bat activity surveys. Zone 2 could not be surveyed due to health and safety concerns regarding night time working and the presence of cattle.
- 4.3 Due to the low levels of bat activity across the site it is not anticipated that any roosts of significant conservation status, such as maternity roosts, are currently present within the site or nearby. However there is the potential for smaller roosts to use the site throughout the year and some of the high suitability trees could also provide hibernation opportunities for bats.
- 4.4 Loss of these trees and of Building 2 would result in a reduction in roosting habitat locally and could lead to the damage or destruction of bat roosts, if present.




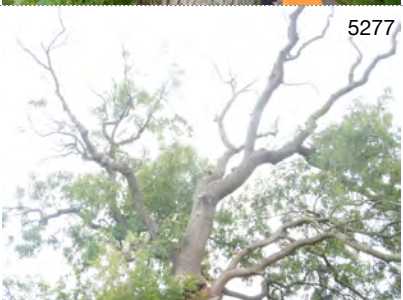
5.0 Recommendations





- 5.1 A full internal roost assessment of Building 2 should be undertaken prior to demolition as well as nocturnal roost surveys. If evidence of roosts is found then a Natural England licence will be required prior to demolition. If any additional buildings, other than those surveyed, are to be impacted then further bat surveys will be required.
- 5.2 Trees with roosting suitability, particularly those with high and moderate suitability, should be retained and protected in line with recommendations made within the Arboriculture Impact Assessment (TEP Ref: 6900.011).
- 5.3 Prior to felling any trees with high or moderate suitability should be subject to nocturnal roost surveys to identify whether roosts are present. If roosts are identified a total of three nocturnal roost surveys will be required, for roost characterisation, to inform a Natural England licence application to fell the affected tree(s). The Natural England licence application will include the implementation of Reasonable Avoidance Measures and mitigation measures.
- 5.4 Reasonable Avoidance Measures will be implemented for any trees, with low to high roosting suitability, to be felled within the scheme. This may include sensitive work programming, precommencement inspections and soft felling under the supervision of a licensed bat ecologist.
- 5.5 Where trees with moderate or high suitability are lost alternative roosting habitat, such as bat boxes, should be incorporated into the scheme. The number and specification of the boxes will be dependent on the scale of loss.





APPENDIX A: Aerial Tree Inspections Survey Data





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T92	Ash	15	80		5267 Multi stemmed ash tree with partial ivy covering to lower half of main stems. Minor knot holes in stem and limbs.	Negligible	Unsuitable for roosting bats.	No
T92.1	PRF1	4	All around		5268 Multiple knot holes with no suitable cavity from 4 to 6m.	Negligible	Unsuitable for Bats	No
T92.2	PRF2	Base	All around		5269 Light ivy cover from base to 6 m. It does not cover any cavities and is not thick enough to form a roosting feature.	Negligible	Unsuitable for Bats	No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T91	Oak	17	70		5270 Mature oak, partial dead ivy cover on main stem, tear out and knot holes located on south side of tree	Low		No
T91.1	PRF1	7.5	S		5271 40 x 5cm tear out on south side of tree. There is a minor cavity that is open to the elements with 5cm horizontal travel.	Low	Suitable as night roost	No
T91.2	PRF2	6	S		5272 Knot hole on end of fractured limb to the south side of tree. 5 cm entrance and 15cm horizontal travel. Cavity is dry	Low	Suitable as night roost	No
T91.3	PRF3	3	S		5273 Rot hole on trimmed limb. Not suitable for roosting bats	Negligible	Not suitable for bats	No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T90	Ash	15	1		5276 Mature ash on field boundary, rot holes and knot holes in lead stems, checked and unsuitable below 7m, unsafe above. Precautionary moderate as features could not be checked.	Moderate	Precautionary moderate as some features could not be safely checked.	Yes
T90.1	PRF1	5	E		5274 Large tear out on main stem from east to south side. 70 x 40cm. Nesting / drey material. Negligible potential. Open to the elements.	Negligible	Unsuitable.	No
T90.2	PRF2	5	All.		5275 Knot holes below 7m checked and have no suitable features.	Negligible		No
T90.3	PRF3	>7	All		5277 Knot holes and woodpecker holes above 7m not checked as the tree is rotten and unsafe to climb above this point. Precautionary moderate.	Moderate		Yes





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T89	Ash	15	1		5278 Mature ash in field boundary hedgerow. Dead limbs, tear outs, rot holes, and woodpecker holes in the crown.	Moderate		Yes
T89.1	PRF1	8.1	N		5279 Tear out in the vertical limb on the north side of the tree open to the elements. 45cm x10cm entrance into cavity 25cm wide x 40cm wide. Nesting material can be seen inside.	Negligible	Not suitable for bats	No
T89.2	PRF2	7.5	E		5280 Split in limb that travels the full length 1.5 m of dead/decaying limb located on the east side of the tree. Small cavity at the end of the limb < 10cm	Negligible	Not suitable for bats	No
T89.3	PRF3	7.5	Central		5281 Snapped off branch with a upward facing cavity 15cm diameter with 30cm downward travel.	Negligible	Not suitable for bats	No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T89.4	PRF4	7	N	 5282	Vertical tear out on limb that sits on north side of the tree. 2cm wide and vertical travel of 1mt open to the elements	Negligible	Not suitable for bats	No
T89.5	PRF5	5	E	 5283	Knot hole on underside end of limb. Entrance is 15cm wide with 15cm of horizontal travel wide cavity.	Low	Potential night roost. In a couple of years could work well as roost	No
T89.6	PRF6	5	E	 5284	Small tear out on end of limb on the east side of tree. 8cm by 15 cm entrance with minor cavity with no travel	Negligible	Not suitable for bats	No
T89.7	PRF7	5	E	 5285	Woodpecker hole on dead decaying limb to the east side of the tree. Dry cavity with entrance of 5cm horizontal travel of 25cm	Moderate	Potential for small roost	Yes





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T88	Ash	18	70		5286 Mature ash in hedgerow. Ivy from base, knot holes and deadwood in the crown. Nesting birds present unable to climb. Precautionary moderate, as knot holes look suitable through binoculars and torch.	Moderate	Unable to climb due to nesting birds.	Yes
T88.1	PRF1	4	NE		5287 Nesting wood pigeon present.	Moderate	Precautionary moderate due to nesting birds.	Yes
T87	Ash	15	60		5294 Ash tree in field on corner of fence line. Deadwood fungus, and knot holes on main stem and in crown.	Moderate		Yes
T87.1	PRF1	3	N		5288 Knot hole on main stem 10cm diameter entrance into 5cm diameter cavity with 10cm upward travel. Wet, slug filled.	Negligible	Unlikely to be used as slug filled.	No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T87.2	PRF2	4	N	 5290	Tear out at 4m on main stem beneath huge bracket fungus. No suitable cavity.	Negligible		No
T87.3	PRF3	9	S	 5292	Two knot holes on vertical limb in the south of the crown. <7cm diameter entrance with no suitable cavities.	Negligible		No
T87.4	PRF4	7	S	 5293	Tear out on underside of main stem from 5 - 7m. Bark is healing, with closed callus rolls, and a woodpecker hole at the top of the feature. 5cm diameter entrance into dry downward cavity with 10cm diameter for 20cm.	Moderate		Yes
T86	Ash	14	70	 5299	Mature ash tree showing signs of ash dieback chalara large amount of cankers creating some low suitability features.	Low		No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T86.1	PRF1	Base to 10	All	 5296	Bark on all sides of the tree, at all heights, has a series of cankers and scars which offer low potential roosting features for single bats.	Low		No
T86.2	PRF2	8m	W	 5298	Tear out on limb to the west side of the tree. 30 x 5cm entrance into 5cm diameter horizontal cavity dry at entrance wet at back of cavity.	Low		No
T85	Ash	15	40	 5300	Ash tree on garden boundary adjacent public footpath. Knotholes in crown on all aspects. Not climbed as on private land.	Moderate		Yes
T84	Ash	15	60	 5301	Ash tree on garden boundary adjacent public footpath. Knotholes in crown on all aspects. Not climbed as on private land.	Moderate		Yes





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T83	Ash	10	50		5304 Ash tree on Bee Lane, with rot hole in pruned limb at 4m on west side, possibly leading through to rot hole on east side of main stem at the same height. Not climbed as wood pigeons are nesting in the hole.	Moderate	Not climbed nesting wood pigeons.	Yes
T83.1	PRF1		4		5306 Hole with wood pigeons nest inside.	Moderate		Yes
T82	Ash	15	70		5307 Ash tree in hedgerow adjacent Bee Lane with missing limbs, and rot holes in the crown.	Moderate		Yes
T82.1	PRF1	6	E		5308 Rot hole on underside of horizontal limb. 15cm x 2m. Open to the elements, unsuitable for roosting bats.	Negligible		No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T82.2	PRF2	7	Centre	 5309	Long tear out in vertical limb in centre of crown. 15cm x 3m. Callus rolls on sides, with a plate of heartwood, which is hollow behind. Entrance at base of callus roll. 5cm entrance into dry upward cavity for 1m. Old nesting materials present.	Moderate		Yes
T82.3	PRF3	7	E	 5310	Woodpecker hole on vertical limb facing north in the east of the crown. 7cm diameter entrance, into smooth cavity partially wet, with 10cm downward travel. Knot hole on same limb has no cavity.	Low		No
T81	Ash	13	1		Mature ash tree in hedgerow on bee lane. Tear out and knot holes visible. At the base of the tree it has been hollowed out by lightning strike. Hollow stem has covered cavity for 1m into lead stem on west side of tree which has day roosting potential.	Moderate		Yes
T81.1	PRF1	5	S	 5311	5 x15cm tear out goes in 10cm tapering cavity with 5cm of upwards and downward travel dry but full of cobwebs	Low	Suitable for single bats.	No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T81.2	PRF2	4	W	 5314	West facing knot hole at 4m, 10 cm entrance into 5cm open cavity no upward or downward travel. Potential as night roost for single bats.	Low		No
T80	Alder	7	40	 5317	Mature alder in field hedgerow. Rot holes in main stem and branches.	Moderate		Yes
T80.1	PRF1	2	E-W	 5316	Main stem cavity at 2m on east and west sides. 20cm diameter cavity with 1m upward and downward travel, cavity above at 3m let's water run through. Hollow main stem.	Moderate		Yes
T79	Alder	7	40	 5316	Mature alder in field hedgerow. Rot holes in main stem and branches	Moderate		Yes





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T79.1	PRF1	2	S	 5319	Hollow main stem with cavities at 2m on south and 3.5m on west sides. Dry inside but water will run through in wet weather.	Moderate		Yes
T78	Alder	7	30	 5320	Alder in field hedgerow boundary. Not climbed as on private land.	Moderate		Yes
T78.1	PRF1	3	S	 5021	Hollow main stem, with woodpecker holes at 2m and hole on top of main stem, likely that water runs through.	Moderate	Cluttered.	Yes
T77	Sycamore	13	40	 5023	Sycamore in field hedgerow boundary. Not climbed as on private land.	Moderate		Yes





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T60	Sycamore	10	45		5352 Sycamore in field hedgerow. Deadwood in crown, knot holes on main stem. All knot holes on main stem checked.	Low		No
T60.1	PRF1	6.5	N		5353 Tear out at the top of the main limb. 10 x 20 cm entrance with 15cm downward travel the cavity is fully exposed to the elements.	Negligible	Not suitable for bats	No
T60.2	PRF2	6	S		5354 Knot hole 7cm diameter 10cm of upward travel with 5cm diameter tapering cavity. Bird droppings are also visible. Cavity is open to the elements.	Low	Low potential for a night roost	No
T59	Ash	10	50		5352 Ash in field hedgerow, dead branches in crown, knot holes and tear outs in main stem. Cavity at base, stem hollow from base to 3m.	High		Yes





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T59.1	PRF1	2	N		5355 Cavities at base, 2m and 3m lead into a main stem cavity. 30cm diameter, dry & smooth inside.	High	Potential for high number of bats, over a prolonged period.	Yes
T59.2	PRF2	6.5	E		5356 Tear out with rot hole leading into vertical stem. 3cm diameter entrance With no suitable cavity.	Negligible		No
T58	Oak	14	70		5357 Mature oak in corner of field. Multiple dead hung up limbs and rot holes.	Moderate		Yes
T58.1	PRF1	5	W		5358 Woodpecker hole on the underside of western limb 7 cm diameter entrance into 15cm diameter dry cavity with 20cm of upward and downwards travel bird nesting material present.	Moderate	Potential for small roost	Yes





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T58.2	PRF2	4.5	S	 5360	Broken limb on south side with splits 1m long in the surface of the cambium, no suitable cavity, no potential for bats.	Negligible	Not suitable for bats	No
T57	Alder	6	30	 5361	Alder in field hedgerow. Light ivy cover from base, deadwood and rotting limbs in the crown.	Negligible	Labelled as sycamore on plan. No sycamore present. Ivy unsuitable for roosting bats.	No
T57.1	PRF1	5	E	 5362	Small knothole in limb, 2cm diameter entrance with no suitable cavity.	Negligible		No
T56	Sycamore	10	60	 5363	Sycamore in corner of field hedgerow. Double crowned. Knot holes and deadwood in main stem and limbs. Wasps nest in main stem cavity at base.	Low		No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T56.1	PRF1	<2	S	 5364	Series of connected rot holes on south side of main stem. Wasps nest inside.	Low		No
T55	Oak	8	50	 5365	Small oak in hedgerow with large tear out on the north side	Negligible		No
T55.1	PRF1	4	N	 5366	Tear out on north side of tree 7cm entrance into 7cm shallow cavity with no horizontal or vertical travel.	Negligible		No
T54	Ash	15	70	 5367	Ash tree in field hedgerow boundary. Knot holes on main stem and limbs, deadwood in the crown.	Moderate		Yes





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T54.1	PRF1	6	W	 5371	Hole in end of snapped, downward facing limb, 5cm diameter entrance with minor 5cm cavity.	Negligible		No
T54.2	PRF2	8	S	 5373	Woodpecker hole in horizontal limb in south of canopy, west facing entrance, 7cm diameter into 5cm diameter dry horizontal cavity with 30cm horizontal travel.	Moderate		Yes
T54.3	PRF3	2	N	 5372	Rot hole 10cm diameter entrance with no suitable cavity.	Negligible		No
T53	Ash	12	80	 5374	Ash in field boundary hedgerow, light ivy cover from base into crown, large tear out and cavity in main stem.	Moderate		Yes





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T53.1	PRF1	2	N		5375 Tear out with large open cavity in main stem, 50cm diameter open cavity, with 2m downward travel in main stem. More than 1m of upward travel in vertical limbs, into dry cavities, 20cm diameter.	Moderate	Potential for summer or winter roost. Little clear drop distance when exiting or entering, otherwise would have high potential.	Yes
T52	Ash	10	60		5376 Ash in field boundary hedgerow, adjacent track. Dead and rotting limbs in the crown, ivy cover from the base.	Moderate	Ivy cover and rot holes are unsuitable for roosting bats.	Yes
T52.1	PRF1	Base	N		5377 5378 Cavity at the base of main stem, 50cm triangular entrance into main stem cavity. More than 3m upward travel.	Moderate.	Potential for summer or winter roost. Little clear drop distance when exiting or entering, otherwise would have high potential.	Yes
T51	Ash	15	80		5379 Mature ash with small amount of ivy on lower half of tree. Tear out on east side of tree.	Negligible	No suitable roosting features	No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T51.1	PRF1	3	E		5380 Tear out 60x40 into open cavity exposed heartwood open to the elements not suitable roosting feature.	Negligible	No suitable for bats	NO
T50	Sycamore	8	40		5381 Sycamore on field boundary hedgerow, deadwood in the crown, knotholes on main stem and branches.	Negligible	No suitable features present.	No
T49	Ash	10	80		5382 Dying ash in field, dead limbs and rot holes in the crown. Climbed to 5m, not safe above.	Moderate	Could not be fully inspected as rotting and unsafe.	Yes
T49.1	PRF1	5	S		5383 Knot hole at 5m on south side with callus rolls. 15 x 10cm entrance into 15cm horizontal cavity. Exposed to the elements.	Negligible		No




Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T49.2	PRF2	5.5	S		5384 Woodpecker hole with split bark to right. 5cm diameter into hollow vertical limb, 20cm diameter cavity, 50cm upward, 50cm downward. Likely wet in poor weather. Moderate.	Moderate	Moderate potential, as wood above is rotten, and may let water through in the winter.	Yes
T14	Alder	8	40		5386 Alder in hedgerow adjacent Bee Lane. Light ivy cover from base to 3m, woodpecker test holes, and deadwood in crown.	Negligible		
T14.1	PRF1	Base	All		5387 Light ivy cover from base to 3m, not thick enough to form roosting feature, does not hide any cavities.	Negligible		
T14.2	PRF2	4	N		5388 Woodpecker test holes in limbs. 2cm diameter entrance with no suitable cavities.	Negligible		





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T48	Ash	12	50		5389 Ash on garden boundary adjacent Moss Lane. Broken branches in the crown, knot holes on main stem and limbs. All features checked.	Low		Yes
T48.1	PRF1	4	SW		5390 Knothole on underside of diagonal limb. 7cm diameter entrance into tapering upward cavity, opening into 15cm diameter round cavity. Wet inside, slug filled.	Low	Will develop into more suitable cavity in the future.	No
T48.2	PRF2	3	SE		5391 Knothole on main stem, 7cm diameter entrance into 7cm round cavity. Open to the elements, suitable as night roost.	Low	Suitable for single bats.	No
T47	Oak	10	70		5392 Oak in corner of field hedgerow, adjacent dairy. Ivy clad from base into crown, minor wounds in bark and knot holes. Ivy not thick enough to form a roosting feature, no features found hidden by ivy.	Negligible	No suitable features present.	No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T46	Ash	10	60		5393 Ash in field boundary, adjacent ivy cover from base into crown. Ivy not thick enough to form a roosting feature, no features found hidden by ivy.	Negligible	No suitable features present.	No
T45	Oak	10	80		5394 Stunted Mature oak in field boundary hedgerow. Deadwood, knot holes and rot holes all visible. Partially ivy covered from base to 4m	Moderate		Yes
T45.1	PFR1	4	SW		5395 End of limb tear out creates a 7CM entrance into a 3cm diameter cavity with 40cm of slight upwards travel. A feather was found at the entrance so birds have been using it. Potential for small bat summer roost.	Moderate	Potential for small summer roost.	Yes
T45.2	PFR2	4	E		5396 Knot hole that still has the wood inside, small cavity created at the side of the wood, dry cavity that has a 10 x3cm entrance with 30cm diameter cavity and 30 cm of upward travel.	Moderate	Potential for small summer roost.	Yes





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T44	Ash	18	60		5398 Dying ash tree adjacent Moss Lane. East side of the crown is dead, overhangs the lane and telecoms wires, and is unsafe to climb.	Moderate	East side of crown unsafe to climb. And has knot holes which may lead into suitable cavities. Precautionary moderate as part of tree could not be safely climbed.	Yes
T44.1	PRF1	6	S		5399 Knot hole in vertical section of limb in the south of the canopy. 10cm diameter entrance into 15cm dry horizontal cavity. No upward or downward travel. Open to the elements.	Low	Suitable as night roost.	No
T44.2	PRF2	6.5	S		5400 Knot hole in vertical section of limb in the south of the canopy. 5cm diameter entrance into minor wet cavity with 15cm horizontal travel.	Negligible		No
T44.3	PRF3	7.5	S		5402 Knot hole on south side of vertical limb. 5cm diameter entrance with no suitable cavity.	Negligible		No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T44.4	PRF4	7	S		5401 Knot hole in on top of limb in the south of the canopy. 5cm diameter entrance into minor wet cavity with 15cm horizontal travel.	Low	Suitable as night roost.	No
T43	Ash	10	40		5403 Ash on side of Moss Lane. Dead branches and knot holes in the crown, ivy cover from base to 5m.	Low	Ivy cover does not for. Suitable roosting habitat, or cover other cavities.	No
T43.1	PRF1	1	S		5404 Split in vertical limb at 1m with exposed heartwood and callus rolls. Cavity at top of the split with 2cm diameter entrance and 60cm upward travel in slim dry cavity.	Low	Cluttered, low entrance, otherwise would have higher suitability.	No
T43.2	PRF2	3	S		5405 Knot hole on underside of horizontal limb. 5cm diameter entrance with no suitable cavity.	Negligible		No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T42	Ash	18	60		5406 Ash tree adjacent Moss Lane. Ivy cover from base to 12m. Climbed, rot holes, but no suitable cavities found. Ivy does not form a suitable roosting feature, or hide other cavities.	Negligible		No
T41	Alder	12	70		5407 Alder in field hedgerow adjacent ditch and high voltage power lines. Ivy cover from base and split with exposed heartwood.	Low	Unsafe to climb as high voltage cables pass within 50cm of crown.	No
T41.1	PRF1	2	W	iPhone	Split ion west side of main stem from base to 2m. Exposed heartwood leading into upwards traveling cavity, 15cm upward travel 5cm diameter. Cluttered entrance.	Low		No
T40	Alder	8	70		5409 Mature alder in boundary hedgerow, multi stem, ivy cladding from base to 7 meters, ivy checked but does not create any roosting feature and does not cover any cavities . knot hole on east side of tree.	Low	Ivy cladding is not suitable to support any bat roost. It is not concealing any cavities.	No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T40.1	Alder	2	E		5408 Knothole at 2 metres on the east side. Entrance 10 x 5cm entrance, with 20 cm of downward taper cavity. Open to the elements,	Low	Low potential for bats	No
T39	Alder	8	60		5410 Alder in field boundary hedgerow adjacent ditch. Ivy clad from base deadwood and knotholes in limbs. Ivy does not form a roosting feature or conceal cavities.	Low		No
T39.1	PRF1	3	E		5411 Snapped limb with knothole on east side of tree. 10cm diameter entrance downward travelling, dry cavity 5cm diameter for 50cm. Potential for lower number of bats. Will fill with water in wet weather.	Low		No
T38	Alder	8	40		5412 Alder in field boundary hedgerow with snapped limbs in crown, and ivy from base. Ivy does not form a roosting feature, or cover cavities. No suitable roosting features found.	Negligible.		No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T38.1	PRF1	4	W	 5414	Rot hole on snapped branch with 10cm diameter entrance into 10cm downward cavity. Open to the elements, wet inside.	Negligible		No
T37	Alder	8		 5413	Alder in field boundary hedgerow, broken branches in crown and knotholes in limbs.	Negligible		No
T37.1	PRF1	4	E	 5415	Rot hole on underside of horizontal section of branch in centre of tree. 10cm x 5cm entrance into shallow wet cavity.	Negligible		No
T36	Oak	6	45	 5416	Oak in field boundary hedgerow. Missing bark, exposed heartwood, and knotholes on main stem and limbs.	Low		



Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T36.1	PRF1	ALL	ALL	5417 5418 5419 5422 	Series of dead and rotting branches throughout the tree. Missing and loose bark, knot holes and rot holes.	Low	Low potential for roosting bats.	No
T36.2	PRF2	4	W	5420 	Loose bark on small snapped horizontal limb. Open to the elements on the west side but minor horizontal travel behind the bark.	Low		No
T36.3	PRF3	3	W	5421 	Knot hole 3cm diameter entrance into 3cm diameter cavity with 5cm of upwards travel.	Low		No
T35	Ash	12	60	5423 	Ash tree in field boundary hedgerow, ivy cover from base to 6m, dead limbs, and knot holes in branches. Ivy does not provide enough cover to form a roosting feature, and no hidden cavities were found.	Low		No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T35.1	PRF1	9	N	 5425	Knot hole on north side of branch on east of the crown. 10cm diameter entrance into 5cm deep, wet cavity. Exposed and unsuitable for roosting.	Negligible		No
T35.2	PRF2	6	N	 5426	Tear out with upward facing cavity. 10cm diameter entrance with 10cm downward travel, nesting materials inside. Open to the elements.	Low		No
T34	Ash	16	70	 5427	Ash tree adjacent Lords Lane. The tree is adjacent f Asholm. Ivy covered from base to 7m, knot holes and tear outs throughout the tree.	Low	Low potential for roosting bats	No
T34.1	PRF1	3	W	 5428	Knot hole on the west side, 10cm entrance with 5cm of upwards travel. Dry cavity partially covered by ivy.	Low	Low potential for a night roost	No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T34.2	PRF2	6	S		5420 Knot hole, south facing with 7cm entrance no suitable cavity behind.	Negligible		No
T34.3	PRF3	10	E		5420 Snapped branch on the east side with no cavity.	Negligible		No
T34.4	PRF4	5.5	N		Knot hole on the north side of the tree, 5cm diameter with no cavity behind.	Negligible		No
T34.5	PRF5	7	E		5420 Tear out on the east side, 12cm entrance with 5cm horizontal travel no cavity.	Negligible		No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T33	Ash	15	60	 5493	Ash on Lords Lane near junction. Not climbed as on private land.	High	Not climbed as on private land. Possible to survey at dusk - dawn from road.	Yes
T33.1	PRF1	4	SE	 5492	Knot hole on major limb, close to main stem. 10cm diameter, potentially into main stem cavity.	High		Yes
	PRF2	4	W	 5493	Knot hole on side of horizontal limb, 10cm diameter smooth cavity inside.	High		Yes
	PRF3	6	W	 5494	Knot hole diagonal limb with potential cavity.	Moderate		Yes





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T32	Alder	10	60	 5434	Alder on corner of Lords Lane and stables. Snapped and rotting limbs in the crown, deep folds in bark on main stem, tear out and missing bark at base.	Low		No
T32.1	PRF1	Base	N	 5435	Tear out at base with exposed heartwood from base to 1.5m, and 10cm of upward travel behind bark. Exposed cavity, unsuitable for roosting bats.	Negligible		No
T32.2	PRF2	1.8	N	 5436	Knot hole on north side of main stem, 3cm diameter entrance into 3cm diameter dry cavity with 10cm upward travel. Suitable as night roost for single or low number of bats.	Low		No
T32.3	PRF3	3	NW	 5437	Snapped limb on main stem, 10cm entrance, downwards into tapering cavity 10cm deep, slug and woodlice.	Negligible		No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T32.4								
T31	Alder	8	40	 A photograph of an Alder tree on a roadside. The tree is green and has a thick trunk. A car is parked on the road to the left, and a person is visible in the background to the right. The number 5491 is written in the top right corner of the image.	Alder on roadside. Minor deadwood and knotholes on main stem and limbs. No suitable features.	Negligible		
T30	Ash	12	60	 A photograph of an Ash tree in a field hedgerow. The tree is large and has a thick trunk. There is dead wood in the crown and a knot hole in the main stem. A person is visible in the background to the left. The number 5466 is written in the top right corner of the image.	Ash in field hedgerow w. Dead wood in crown and knot hole in main stem.	Negligible		No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T30.1	PRF1	5.6	E		5467 10cm diameter knot hole. Horizontal travel for 5cm. No suitable cavity. Gooney inside.	Negligible		No
T30.2	PRF2	6.8	E		5468 Tear out 10cm by 5cm entrance. Horizontal travel for 10cm into heart wood. Wet inside.	Negligible		NO
T30.3	PRF3	3	E		5469 Large knot hole on east side of main stem 20 x 15cm, 20cm horizontal travel, open cavity. No suitable cavities.	Negligible		No
T30.4	PRF4	3	N		5470 Tear out in main stem on north side with exposed. Heartwood and callus rolls on sides. No suitable cavity.	Negligible		No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T29	Alder	8	25		5471 Alder in field hedgerow,	Low		No
T29.1	PRF1	2	E		5472 5473 Rot hole 4cm entrance, travels 30cm up and down stem, 10cm diameter hole inside. Opens above through another rot hole. Rain will wash through.	Low		No
T28	Ash	12	70		5474 Dying ash in hedgerow. Dead wood in crown. Rot and superficial scars in bark in all areas. Hole SE side from base to 1.8m, exposed heart wood. Woodpecker holes negligible. Precautionary moderate as tree cannot be safely climbed and there are features with potential in the crown.	Moderate	Unsafe to climb due to rot	Yes
T27	Alder	8	60		5475 Alder at end of hedgerow. Large cavity at 2m. Series of knot holes from 3 - 7 meters, all checked.	High		Yes





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T27.1	PRF1	2.5	S	 5476	Main stem cavity at 2.5m. Hollow upwards for at least 2m, dry and smooth, Enclosed from above. Potentially other chambers inside. Entrance 50 by 30 cm where bark is missing, down to 15cm diameter cavity.	High		Yes
T27.2	PRF2	5.5	E	 5477	Rot hole. 7cm diameter entrance. Travels 10m. Full of woodlice / insects.	Negligible		No
T26	Ash	12	65	 5478	Ash at end of hedgerow in corner of field. Light ivy cover. Wasp nest in one knot hole. Callous and knot holes within branches. Precautionary moderate.	Moderate	Unsafe to climb due to wasps nest in tree.	Yes
T26.1	PRF1	4	E	 5479	Knot hole at 4m on E side. 15cm diameter entrance hole. Callous rolls into a main stem cavity, approx 10cm diameter, with upward travel.	Moderate		Yes



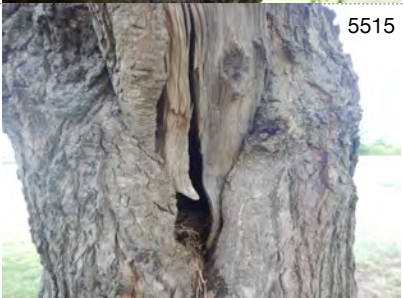

Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T25	Alder	10	60		5480 Alder within hedgerow. Dead branches and knot holes in crown. knot hole at 3m on south side of main stem, has active wasps nest. Tree unsafe to climb.	High	Unsafe to climb.	Yes
T24	Alder	10	60		5482 Alder in hedgerow. Light ivy cover. Cavity on east side on main stem.	High		Yes
T24.1	PRF1	2	E		5481 Rot hole with 10 x 5cm entrance into 20cm diameter dry smooth main stem cavity. Old bird nesting material and feathers at base. More than a meter upwards travel. Enclosed above.	High	Slightly cluttered entrance.	Yes
T23	Oak	16	70		5486 Oak within hedgerow with ivy cover and dead wood in crown. Large (unused) birds nest in crown, possibly buzzard. Tear out on south side of tree, hanging deadwood in tree.	Low		No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T23.1	PRF1	6	N		5483 Split on horizontal limb, to N of tree. Callousing around edges. Open on both sides of limb, max 3cm wide, 50cm long. No upward travel. Could possibly be used as a night roost.	Low		No
T23.1	PRF2	5	N		5484 Split in horizontal branch. 40cm long, entrance gap max 1cm wide, cavity too small for bats.	Negligible		No
T22	Oak	14	70		5487 Oak in hedgerow. Large split in a branch union in southeast side of horizontal limb.	Negligible		No
T22.1	PRF1	4	SE		5488 Rotting branch at 4m on southeast side. Dead limb still in place, 10cm horizontal slug filled cavity behind.	Negligible		No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T22.2	PRF2	3.5	SE		5489 Horizontal limb, Split in branch union, exposed. cavity open above and below. 10cm wide. Split tapers down towards main stem. Exposed to the elements.	Negligible		No
T21	Oak	10	70		5490 Oak in hedgerow with ivy cover from base, broad stemmed lower down with minor cavity behind. Thinning as it rises into the crown. Deadwood in crown. No cavities or suitable roosting features found.	Negligible	Ivy does not form suitable roosting feature, no suitable cavities found. Cluttered.	No
T20	Ash	12	80		5495 Ash in hedgerow next to (unused) public footpath. Knot hole to east, rotting and open behind. To the south the tree opens up and is exposed.	High	Climbed to 3m as unsafe beyond that. Most of heartwood missing on south side of the tree, open, but has cavities which can't be checked.	Yes
T20.1	PRF1	2	NW		5496 Tear out on northwest of tree. 50cm diameter cavity travels up and down. Tree completely hollow. Cluster of entrances into main stem cavity.	High		Yes





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required	
T20.2	PRF2	>3	S	5497 5498 5499		Torn out limb on underside of main stem, hollow, with callus rolls, and the potential for smaller cavities within.	High		Yes
T19	Ash	18	60	5500		Ash in southwest corner of field boundary hedgerow, ivy clad from 2m into crown, knotholes and deadwood in the crown. Ivy unlikely to provide suitable roosting opportunities. Likely low potential, but given precautionary moderate as unable to climb.	Moderate	Unable to safely climb as next to power line.	Yes
T18	Ash	18	70	5501		Ash in southeast corner of field boundary hedgerow, ivy clad from 2m into crown, knotholes and deadwood in the crown. Ivy unlikely to provide suitable roosting opportunities. Likely low potential, but given precautionary moderate as unable to climb.	Moderate	Unable to safely climb as next to power line.	Yes
T17	Alder	8	45	5502		Alder in field hedgerow. Ivy clad from base deadwood and knotholes in crown.	Low		No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T17.1	PRF1	Base	S		5504 Thick ivy stems forming a mat, with minor gaps below which could be used by single or low numbers of roosting bats.	Low		No
T17.2	PRF2	3	S		5507 Rot hole on south side of limb at 3m.	Negligible		No
T16	Ash	10	50		5503 Ash tree in field hedgerow rot holes on main stem and ivy clad from base to 9m.	Low		No
T16.1	PRF1	4	S		5505 Rot hole on south side of main stem. 7x5cm entrance with no travel no suitable cavity.	Negligible		No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T12	Oak	10	50		5511 Mature oak in field hedgerow, series of rot holes and deadwood, large split in main stem at 2 meters.	High	High potential for bats	Yes
T12.1	PRF1	5.3	E		5514 Tear out on east side of the tree, 10 x 4cm entrance into tapering cavity with 7cm of horizontal travel.	Low	Low potential for night roost	No
T12.2	PRF2	2	E		5515 Rot hole at 2 meters on the east side of the main stem, 30 x 10cm entrance leading into 30cm diameter dry tapering main stem cavity, with > 1m of upward travel.	High	High potential for summer roost	High
T11	Oak	12	60		Mature oak in field hedgerow, light ivy cladding from base to 9m which does not form or conceal roosting features. Deadwood and knot holes in the crown.	Low		No





Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T11.1	PRF1	7	Ne		5518 Woodpecker hole on the underside of a main limb, 7cm entrance with 20cm of horizontal travel and 5cm of upwards travel.	Low	Low potential night roost	No
T11.2	PRF2	6	N		5519 Tear out 30cm entrance with exposed bark and no suitable cavity.	Negligible	Not suitable for bats	No
T9	Ash	7	60		Ash tree in field boundary hedgerow. Ivy cover from base, tear outs and deadwood in the canopy.	High	No safe anchor points in the top of the tree so inspected to 4m. Other potential features above.	Yes
T9.1	PRF1	2	W		Tear out in main stem at 2m, leading into main stem cavity, more than 1m downward travel, more than 1m upward travel in hollow leader.	High		Yes

Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T10	Oak	10	70		5522 Oak in field boundary hedgerow with deadwood and missing limbs in the crown, and tear out on west side of main stem.	Low		No
T10.1	PRF1	1.5			5523 Knot hole on west side of main stem at 1.5m, 15 x 8cm entrance with 30cm horizontal travel in 10cm diameter tapering cavity. Open to the elements.	Low	Cavity is too small and open to be used by large number of bats, or as a day roost.	
T8	Oak	8	60		5524 Oak in field hedgerow on northern boundary, adjacent ash. Deadwood and knotholes in the crown, split on east side of main stem from base to 3m.	High		Yes
T8.1	PRF1	<3	E		5525 Split in main stem from base to 3m, closing at the top, leading into series of cavities with more than 1m of upward travel. No	High		Yes

Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required	
T7	Oak	12	50		5528	Oak in field hedgerow deadwood and knotholes in the crown.	Low		No
T7.1	PRF1	3	S		5526	Snapped limb with rot hole at base. Minor cavity at base of dead limb, 10cm horizontal travel. Suitable as night roost.	Low		No
T7.2	PRF2	3.5	W		5527	Knot hole 15mm entrance with no 10cm cavity	Low		No
T6	Ash	14	70		5536	Series of knot and rot holes, from 3 to 8 meters. Main stem cavity and dead wood in crown. Inspection abandoned due finding nesting swallows.	High	Main stem cavity currently has swallow's in it, but would make good large cavity for bats.	Yes

Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T6.1	PRF1	4	S	 5537	Main stem cavity entrance on the north and south side. Entrance on south side 10cm by 5cm entrance on north side 30cm by 15 cm with > 1 meter upwards travel. Dry cavity	High	High potential for stunner roost	Yes
T6.2	PRF2	5	W	 5538	Rot hole at end of limb, not inspected	Mod	Not inspected due to nesting birds	Yes
T6.3	PRF3	6	S	 5539	Tear out, from limb on se side of tree, not inspected	Mod	Not inspected due to nesting birds	Yes
T5	Ash			 5535	Ash in field hedgerow, mature with deadwood in the canopy and crown, series of knot and rot holes .	High	High potential for roosting bats	Yes

Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T5.1	PRF1	7	E	5532 5531 5530 	Cavity in main stem with two entrances, 10 x 10cm entrance with 30cm diameter cavity, upwards travel of > 1 meter.	High	High potential for summer roost	Yes
T5.2	PRF2	5	Nw	5534 	Snapped off limb 10cm callus roll but no cavity	Negligible	Not suitable for bats	No
T4	Oak			5542 	Oak in field boundary hedgerow.	Moderate		Yes
T4.1	PRF1	3	N	5540 	Knot hole, 10cm diameter entrance 10cm into tapering cavity with 20cm upward and downward travel.	Moderate		Yes

Tree / feature number	Species	Height	DBH / Aspect	JPEG	Description	Suitability	Comments	Further survey / mitigation required
T4.2	PRF2	5	E	 5541	Snapped limb on east side of crown with minor callus roll. No suitable cavity.	Negligible		No
T3	Alder	7	60	 5543	Alder in field boundary light ivy clad from base into crown knot hole on east side	Mod		No
T3.1	PRF1	3	E	 5544	Knot hole on east side of tree, 5x15cm entrance into 10cm diameter dry cavity, 70cm downward travel nesting materials present at bottom of cavity.	Mod		Yes
T2	Ash	8	60		Ash in field hedgerow in SW corner of field. Snapped limbs and deadwood in the crown.	Low		No

DRAWING
G6900.011 Ground Based and Aerial Tree Inspection Results

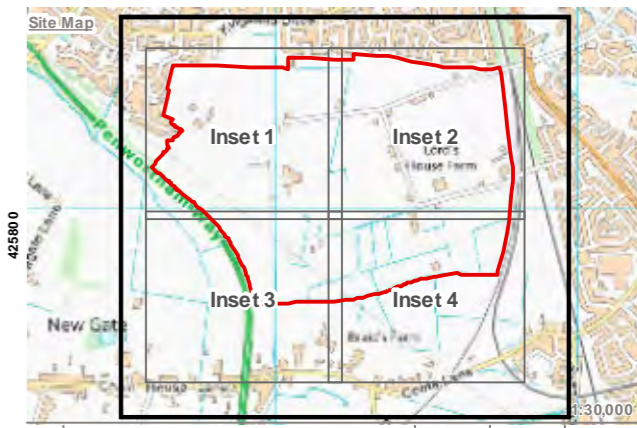


KEY

- Survey boundary
- Broad-leaved tree with high bat potential
- Broad-leaved tree with moderate bat potential
- Broad-leaved tree with low bat potential

Note:
Tree ID numbers refer to trees subject to aerial inspections.

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Rev	Description	Drawn	Approved	Date
A	Site boundary update.	MK	LP	29/11/2018

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Project
The Lanes, Penwortham

Title
Ground Based and Aerial Tree Inspection Results - Overview

Drawing Number G6900.011A				Sheet 1 of 5
Drawn MK	Checked LL	Approved LL	Scale 1:5,000 @ A3	Date 29/11/2018



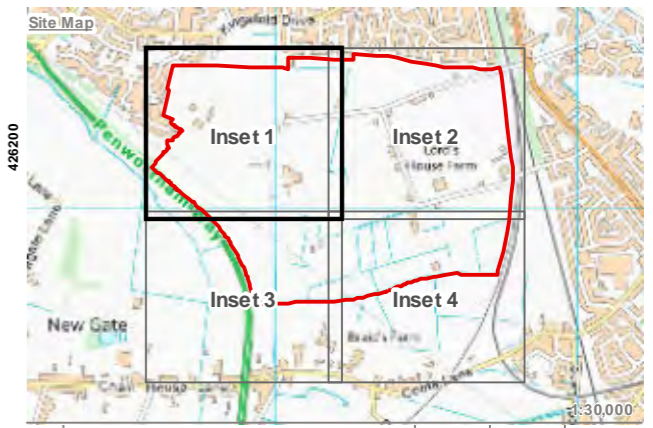
KEY

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Rev	Description	Drawn	Approved	Date
A	Site boundary update.	MK	LP	29/11/2018

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Project:
Pickerings Farm, Penwortham

Title:
Ground Based and Aerial Tree Inspection Results - Inset 1

Drawing Number G6900.011A	Sheet 2 of 5
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Drawn MK	Checked LL	Approved LL	Scale 1:2,250 @ A3	Date 29/11/2018
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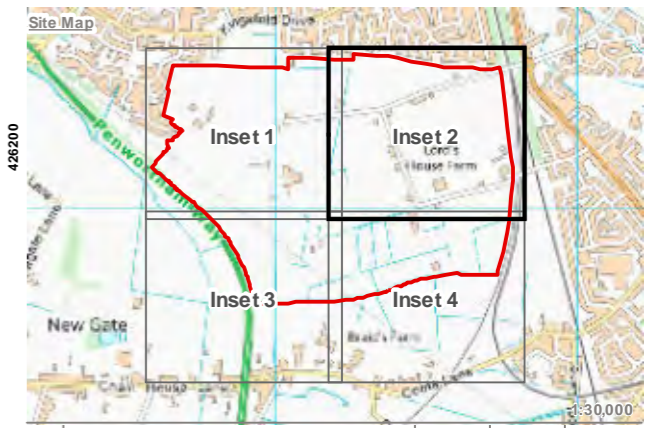
KEY

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Rev	Description	Drawn	Approved	Date
A	Site boundary update.	MK	LP	29/11/2018

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Project:
Pickerings Farm, Penwortham

Title:
Ground Based and Aerial Tree Inspection Results - Inset 2

Drawing Number G6900.011A	Sheet 3 of 5
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Drawn MK	Checked LL	Approved LL	Scale 1:2,250 @ A3	Date 29/11/2018
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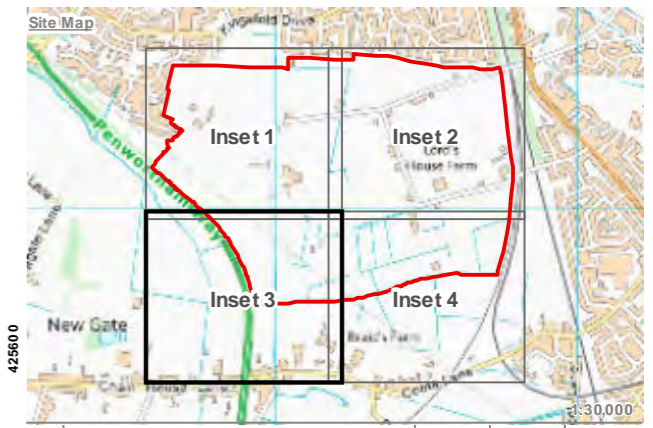
KEY

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- Broad-leaved tree with low bat potential

Note:
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Rev	Description	Drawn	Approved	Date
A	Site boundary update.	MK	LP	29/11/2018

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Project:
Pickerings Farm, Penwortham

Title:
Ground Based and Aerial Tree Inspection Results - Inset 3

Drawing Number G6900.011A	Sheet 4 of 5
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Drawn MK	Checked LL	Approved LL	Scale 1:2,250 @ A3	Date 29/11/2018
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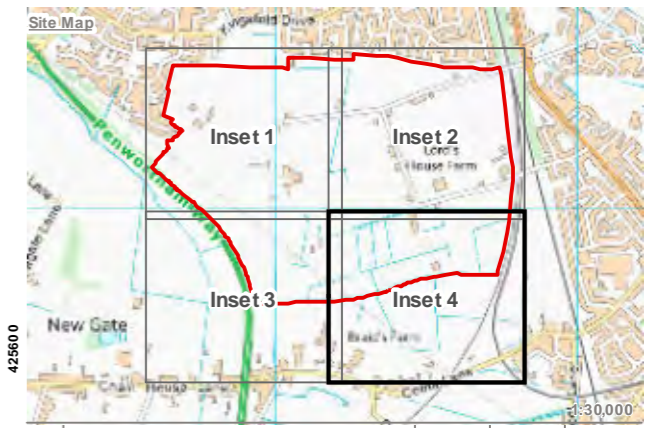
KEY

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Note:
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Project:
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Title:
Ground Based and Aerial Tree Inspection Results - Inset 4

Drawing Number: **G6900.011A** Sheet 5 of 5

Drawn	Checked	Approved	Scale	Date
MK	LL	LL	1:2,250 @ A3	29/11/2018



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